

**PROPOSED AMENDED RULE 1415. REDUCTION OF REFRIGERANT
EMISSIONS FROM STATIONARY ~~REFRIGERATION AND~~
AIR CONDITIONING SYSTEMS**

(a) Purpose

The purpose of this rule is to reduce emissions of ~~Class I and Class II high-global warming potential~~ refrigerants from stationary ~~refrigeration and~~ air conditioning systems by requiring persons subject to this rule to reclaim, recover, or recycle refrigerant and to minimize refrigerant leakage.

(b) Applicability

This rule is applicable to any person who owns or operates an ~~refrigeration air conditioning~~ system, as defined in this rule. This rule is also applicable to any person who installs, replaces, services, disposes, audits, or relocates an ~~refrigeration air conditioning~~ system, to any person who services or maintains recycling and recovery equipment, and to any person who recycles, recovers, reclaims, or sells high-global warming potential refrigerant. ~~—All amendments to this rule adopted as of October 14, 1994 shall take effect as of October 14, 1994.~~

(c) Definitions

For purposes of this rule, the following definitions shall apply:

- (1) ADDITIONAL REFRIGERANT CHARGE ~~is means~~ the quantity, in pounds, of refrigerant ~~(in pounds) charged~~ added to an air conditioning ~~refrigeration~~ system in order to bring the system to a full-~~capacity~~ charge ~~and replace refrigerant which has leaked.~~ Additional refrigerant charge does not include an initial refrigerant charge.
- (2) AIR CONDITIONING SYSTEM means any stationary, non-residential appliance, which holds more than 50 pounds of high-global warming potential refrigerant, and provides cooling to a space to an intended temperature of not less than 68°F for the purpose of cooling objects or occupants. Computer-room air conditioner is included in this definition.

- (3) AUDIT means inspection and maintenance of an air conditioning system conducted to identify leaks and ensure proper operation pursuant to manufacturer's specification.
- (4) CERTIFIED RECLAIMER is a person who holds a current, valid, and applicable reclaimer certificate in accordance with Title 40 of the Code of Federal Regulations, Part 82, Subpart F, §82.164.
- (~~5~~2) APPROVED~~CERTIFIED~~ REFRIGERANT RECOVERY OR RECYCLING EQUIPMENT is equipment for refrigerant recovery or recycling that meets the definition~~is certified~~ by the U.S. Environmental Protection Agency pursuant to ~~the requirements of Part 82 of~~ Title 40 of the Code of Federal Regulations, Part 82, Subpart F, §82.152.
- (3) ~~APPROVED RECYCLING EQUIPMENT is any refrigerant recycling equipment that is certified by Underwriters Laboratories, or another independent testing organization as approved by the Executive Officer's designee, and is certified by the Environmental Protection Agency pursuant to the requirements of Part 82 of Title 40 of the Code of Federal Regulations.~~
- (4) ~~AUDIT is an annual inspection of the refrigeration systems containing Class I refrigerants conducted to:~~
- (A) ~~identify leaks pursuant to a District approved method (Section (2)(A)); and~~
- (B) ~~ensure proper operation pursuant to manufacturer's specification.~~
- (5) ~~CERTIFIED AUDITOR for the purpose of this Rule is a person that:~~
- (A) ~~has the following current, valid, and applicable U.S. Environmental Protection Agency certificate provided in accordance with Part 82 of Title 40 of the Code of Federal Regulations:~~
- 1(i) a Type II Technician certificate for high or very high pressure refrigeration systems and a Type III Technician certificate for low pressure refrigeration systems; or
- (ii) a Universal Technician certificate, or
- (B) until June 30, 1995, has successfully completed a District approved course in conducting inspections and generating records for

~~compliance with this rule, and has a current, valid, written certification from the Executive Officer's designee.~~

~~(6) — CERTIFIED RECLAIMER is a person who holds a current, valid, and applicable reclaimer certificate in accordance with Part 82 of Title 40 of the Code of Federal Regulations.~~

~~(67)~~ CERTIFIED TECHNICIAN is a person who ~~on and after November 14, 1994 has the following~~has a current, valid, and applicable U.S. Environmental Protection Agency technician certificate ~~provided issued~~ in accordance with ~~Part 82 of~~ Title 40 of the Code of Federal Regulations, Part 82, §82.40 or §82.161.:

~~(i) — a Type II Technician certificate for high or very high pressure refrigeration systems; or~~

~~(ii) — a Type III Technician certificate for low pressure refrigeration systems; or~~

~~(iii) — a Universal Technician certificate.~~

~~(8) — CLASS I REFRIGERANT is any compound or any combination of compounds designated by U.S. Environmental Protection Agency as a CLASS I refrigerant pursuant to 42 U.S.C. 7671(a).~~

~~(9) — CLASS II REFRIGERANT is any compound or any combination of compounds designated by U.S. Environmental Protection Agency as a CLASS II refrigerant pursuant to 42 U.S.C. 7671(a).~~

~~(7)~~ CHLOROFLUOROCARBON or CFC is a class of compounds primarily used as refrigerants, consisting of only chlorine, fluorine, and carbon.

~~(810)~~ DISPOSE is to discard refrigerant in any manner, except destruction by incineration or by a treatment method specifically approved by the U.S. Environmental Protection Agency for handling such refrigerant without releasing it to the atmosphere.

~~(9)~~ HIGH-GLOBAL WARMING POTENTIAL REFRIGERANT means any compound used as a heat transfer fluid or gas that is:

(A) a chlorofluorocarbon; or

(B) a hydrochlorofluorocarbon; or

- (C) a perfluorocarbon; or
- (D) any compound or blend of compounds, with a global warming potential equal to or greater than 150; or
- (E) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulation, Part 82, §82.3
- ~~(11) High pressure refrigeration system is a refrigeration system that uses a refrigerant with a boiling point between -50 and 10 degrees Centigrade at atmospheric pressure (29.9 inches of mercury).~~
- ~~(12) Low pressure refrigeration system is a refrigeration system that uses a refrigerant with a boiling point above 10 degrees Centigrade at atmospheric pressure (29.9 inches of mercury).~~
- ~~(13) MAINTENANCE is an annual service of the refrigeration system containing Class II refrigerants conducted to:~~
 - ~~(A) ensure proper operation pursuant to manufacturer's specification; and~~
 - ~~(B) assess the overall integrity of the refrigeration system to detect leaks.~~
- (10) HYDROCHLOROFLUOROCARBON or HCFC is a class of compounds primarily used as refrigerants, consisting of only hydrogen, chlorine, fluorine, and carbon.
- (11) HYDROFLUOROCARBON or HFC is a class of compounds primarily used as refrigerants, consisting of only hydrogen, fluorine, and carbon.
- (12) PERFLUOROCARBON or PFC is a class of compounds consisting only of carbon and fluorine.
- ~~(13)~~ 14) PERSON is any firm, business establishment, association, partnership, corporation, or individual, whether acting as principal, agent, employee, or in any other capacity, including any governmental entity or charitable organization.
- ~~(14)~~ 15) RECLAIM is to reprocess refrigerant to a level equivalent to new product specifications in accordance with applicable requirements of the U.S. Environmental Protection Agency contained in ~~Part 82 of~~ Title 40, ~~of the~~ Code of Federal Regulations, Part 82, Subpart F, §82.152.

(~~15~~16) RECOVER is to remove refrigerant, in any condition, from a system and to store it in an external container, without necessarily testing or processing it in any way.

(~~16~~17) RECYCLE is to extract refrigerant from an appliance and clean refrigerant for reuse by oil separation and single or multiple passes through moisture-absorption devices, such as replaceable core filter-driers which reduce moisture, acidity, and particulate matter, without meeting all of the requirements for reclamation.

(~~17~~18) REFRIGERANT LEAK is any discharge of refrigerant into the atmosphere from a refrigeration-an air conditioning system, refrigerant recovery equipment,—or recycling equipment,—into—the atmosphererefrigerant cylinder, or other container.

~~(19) —REFRIGERATION SYSTEM is any non-vehicular equipment used for cooling or freezing, which holds more than 50 pounds of, any combination of Class I and/or Class II refrigerant, including, but not limited to, refrigerators, freezers, or air conditioning equipment or systems.~~

(~~18~~20) SELF-CONTAINED RECOVERY EQUIPMENT is any refrigerant recovery equipment that is capable of removing the refrigerant from an air conditioning refrigeration system without the assistance of components contained in the refrigerationair conditioning system.

~~(21) —Very high pressure refrigeration system is a refrigeration system that uses a refrigerant with a boiling point below 50 degrees Centigrade at atmospheric pressure (29.9 inches of mercury).~~

(d) Requirements

(1) A person shall not operate an air conditioning system subject to this rule unless all of the following requirements are met:

(A) A Registration Plan for the entire facility is submitted at start of operation, and every two years thereafter. Such plan shall contain the following information:

(i) facility name and address;

(ii) name and title of contact person;

(iii) type of business;

- (iv) annual energy use in kilowatt-hour;
- (v) facility area;
- (vi) number of air conditioning systems in operation;
- (vii) manufacturer name, model and serial number for the air conditioning system;
- (viii) type of refrigerant in each air conditioning system;
- (ix) full charge of refrigerant in each air conditioning system;
- (x) date of last annual audit or maintenance performed for each air conditioning system; and
- (xi) amount of additional refrigerant charge every year for each system.

(B) The owner or operator shall conduct an annual audit of the air conditioning system to determine whether such system is operating pursuant to manufacturer's specifications and does not have refrigerant leaks. At a minimum, the annual audit shall include the following:

- (i) A leak inspection conducted by a certified technician using one or more of the following methods:
 - (I) Refrigerant leak detection device used in accordance with the manufacturer's specifications;
 - (II) A bubble test;
 - (III) Observation of oil residue; or
 - (IV) An alternate method approved by the Executive Officer.
- (ii) A determination of the amount of refrigerant leak for each air conditioning system by recording the total capacity of refrigerant charge in each air conditioning system, the quantity of any additional refrigerant charge for each air conditioning system, and the date of each charge. The quantity of additional refrigerant charge shall be determined by weighing the refrigerant charging container before and

after each charge, using equipment that is accurate to the nearest pound.

(iii) An examination for deficiencies which may cause refrigerant leakage.

(2) Any person who owns or operates an air conditioning system that has a refrigerant leak shall ensure that the leak is repaired no later than 14 calendar days after the leak has been discovered or should have been discovered. The owner or operator shall maintain a log of repair activities beginning at the time the leak is discovered and ending at the time when the leak has been repaired. The air conditioning system shall be verified by a certified technician to be leak free before any refrigerant is added to the system.

(34) ~~On and after January 1, 1992, n~~No person shall install, service, repair, modify, or dispose of any ~~refrigeration~~air conditioning system, ~~or perform any related repairs or modifications~~ that may cause the release of ~~Class I or Class II~~ high-global warming potential refrigerants unless that person meets all of the following requirements:

(A) The person has a current, valid, and applicable U.S. Environmental Protection Agency technician certificate issued in accordance with Title 40 of the Code of Federal Regulations, Part 82, Subpart F, §82.161.

(BA) Recovers, recycles, or reclaims the refrigerant, using ~~approved certified refrigerant recovery or~~ recycling ~~or recovery~~ equipment for that type of ~~refrigeration~~ air conditioning unit, and employs procedures for which the ~~recycling or certified refrigerant~~ recovery ~~or recycling~~ equipment was approved by the U.S. Environmental Protection Agency. ~~Recovery and recycling~~ Such equipment shall be used as specified by the certified refrigerant recovery or recycling equipment manufacturer, unless the manufacturer's specifications are in conflict with the ~~equipment-approved~~ procedures approved by the U.S. Environmental Protection Agency for the certified refrigerant recovery or recycling equipment. Refrigerant may be returned to the ~~refrigeration~~ air conditioning system from which it is recovered ~~from~~, or to another ~~refrigeration~~

air conditioning system owned by the same person, without being recycled or reclaimed.

(~~CB~~) Satisfies job site evacuation of ~~Class I and Class II~~ refrigerants during recycling, recovering, reclaiming, or disposing in accordance with ~~applicable regulations of the U.S. Environmental Protection Agency as contained in Part 82, Subpart F, Section 82.156, of Title 40 of the Code of Federal Regulations, Part 82, Subpart F, §82.156, then in effect including, but not limited to, "Required Levels of Evacuation for Air Conditioning and Refrigeration Equipment".~~ De minimis refrigerant releases associated with a good faith attempt to recycle or recover refrigerants are allowed provided that required practices or requirements ~~in accordance with regulations then in effect of the U.S. Environmental Protection Agency contained in Part 82, Subpart F, Section 82.156 and Section 82.158, and Part 82, Subpart B of Title 40 of the Code of Federal Regulation, Part 82, Subpart F, §§82.156 and 82.158~~ are followed;

(~~DC~~) Has at least one piece of approved, self-contained recovery equipment available at their place of business;

(~~ED~~) ~~On or after October 14, 1994, a~~Any person who owns or operates an approved a certified refrigerant recovery or recycling ~~or recovery~~ equipment:

(i) Shall not operate any approved recycling or recovering equipment, except for the maintenance or repair of such equipment, unless the equipment has been tested for and been determined to have no leaks within the past six months as determined by a method approved by the Executive Officer's ~~designee~~. Leaks in recycling, recovering, or charging equipment shall be repaired within 2 working days after the leak is first detected, unless the equipment does not leak if its use is discontinued;

(ii) Shall not alter the design of approved recovery and recycling equipment in a manner that would affect the equipment's ability to meet the certification standards set by

the U.S. Environmental Protection Agency without resubmitting the altered design for approval testing. Until such altered equipment is tested by a U.S. Environmental Protection Agency approved testing facility, and is shown to meet the certification standards set forth by the U.S. Environmental Protection Agency, the equipment so altered shall not be considered approved; and,

- (iii) Shall provide proof of certification for the recovery and recycling equipment from the U.S. Environmental Protection Agency to the Executive Officer's ~~designee~~ upon request.

~~(E) — On and after November 14, 1994 has the following current, valid and applicable U.S. Environmental Protection Agency certificate provided in accordance with Part 82 of Title 40 of the Code of Federal Regulations:~~

- ~~(i) — a Type II Technician certificate for high or very high pressure refrigeration systems; or~~
- ~~(ii) — a Type III Technician certificate for low pressure refrigeration systems; or~~
- ~~(iii) — a Universal Technician certificate.~~

~~(2) — No person shall operate a refrigeration system unless all of the following applicable requirements are met:~~

~~(A) — An annual audit has been conducted for refrigeration systems containing Class I refrigerant by a Certified Auditor to determine whether the system is operating pursuant to manufacturer's specifications and does not have refrigerant leaks. This audit shall commence no later than July 1, 1992, and every 12 months thereafter. At minimum, the annual audit shall require the following:~~

- ~~(i) — A leak test shall be conducted for refrigeration systems operating above atmospheric pressure using one of the following methods:~~

- ~~(I) — Electronic halogen detector used in accordance with manufacturer's specifications;~~
 - ~~(II) — Fluorescent tracer dyes injected into the system according to manufacturer's specifications, and scanned with an ultraviolet lamp; or~~
 - ~~_(III) — An alternate method approved by the Executive Officer's designee.~~
- ~~(ii) — A leak test shall be conducted for refrigeration systems operating below atmospheric pressure by using one of the following methods:~~
 - ~~(I) — Pressurizing the system by using an inert gas mixture with an indicator or by raising the temperature of the Evaporator; or~~
 - ~~(II) — An alternate method approved by the Executive Officer's designee.~~
- ~~_(iii) — Amount of refrigerant leak shall be determined, for each refrigeration system, by recording the total capacity of refrigerant charge in each refrigeration system, the quantity of any additional refrigerant charge to each refrigeration system, as defined in (c)(1), and the date of each charge. The quantity of additional refrigerant charge shall be determined by weighing the refrigerant charging container before and after each charge, using equipment that is accurate to the nearest pound.~~
- ~~_(iv) — An examination for deficiencies which may cause refrigerant leakage.~~
- ~~(B) — An annual maintenance program for refrigeration systems containing Class II refrigerants has been established to ensure that the system is operating pursuant to the manufacturer's specification and that it does not have any refrigerant leaks. This program shall consist of all of the following:~~

~~(i) — An inspection for leaks by a certified technician which includes an examination for deficiencies which may cause refrigerant leakage.~~

~~(ii) — A written record of the quantity of any additional refrigerant charge to each refrigeration system. The quantity of additional refrigerant charge shall be determined by weighing the refrigerant charging container before and after each charge, using equipment that is accurate to the nearest pound.~~

~~(C) — A Registration Plan for the entire facility has been submitted to the District by January 1, 1996 and every two years thereafter. This Registration Plan shall contain:~~

~~(i) — number of refrigeration systems in operation;~~

~~(ii) — type of refrigerants in each refrigeration system;~~

~~(iii) — amount of refrigerant in each refrigeration system;~~

~~(iv) — date of last annual audit or maintenance performed for each refrigeration system; and~~

~~(v) — amount of refrigerant charged every year.~~

~~—— (3) — On and after January 1, 1992, any person who owns or operates a refrigeration system that has a refrigerant leak as defined in paragraph (c)(18) shall ensure that the leak is repaired no later than 14 calendar days after the leak has been discovered or should have been discovered. The owner or operator shall maintain a log of repair activities beginning at the time the leak is discovered and ending at the time when the leak has been repaired. The refrigeration system shall be verified by a certified technician to be leak free before any refrigerant is added to the system.~~

(4) ~~On or after November 14, 1994, n~~**No** person shall sell, distribute, offer for sale or distribution, ~~or purchase~~ any ~~Class I or Class II~~**high-global warming potential** refrigerant for use as a refrigerant to any person unless:

(A) The buyer is a certified technician pursuant to Part 82 of Title 40 of the Code of Federal Regulations;

(B) The buyer is an authorized representative of a person employing at least one certified technician, and the buyer has provided evidence that at least one technician is properly certified.

~~(CB)~~ The refrigerant is sold only for eventual resale to certified technicians or to refrigeration air conditioning system manufacturers;

~~(DC)~~ The refrigerant is contained in an refrigeration air conditioning system; ~~or~~

~~(D)~~ ~~The refrigerant is charged into a refrigeration system by a certified technician.~~

(5) ~~Effective October 18, 1994 until May 15, 1995, n~~No person shall sell, offer for sale, supply, or distribute, or offer for sale any ~~Class I or Class II~~high-global warming refrigerant consisting wholly or in part of used refrigerant unless the refrigerant has been reclaimed by a certified reclaimer.

(6) No person reclaiming refrigerants shall release into the atmosphere more than 1.5 percent of the refrigerant received for reclamation.

(e) Recordkeeping

(1) ~~On and after January 1, 1992, a~~Any person owning or operating any refrigeration air conditioning system is required to maintain the following records for each refrigeration air conditioning system:

(A) A report demonstrating compliance with paragraphs (d)(~~12~~) and ~~repairs required by paragraph (d)(23)~~, which includes the following information:

- (i) Date of annual audit ~~and annual maintenance program~~;
- (ii) All work completed for each refrigeration air conditioning system to prevent or repair leaks, including results of leak testing and leak determinations;
- (iii) Name(s) of the person who completed the inspection and repair, and including the name, address, and telephone number of the company the person is representing;

- ~~(iv) — The permit number of the recycling or recovery equipment;~~
 - ~~(i~~v) The log of repair activities; and
 - ~~(vi)~~ Technician certificate ~~type~~number.
- (B) A log of the quantity of each additional refrigerant charged to the ~~refrigeration~~ air conditioning system and the date of each charge.
- (C) A log of malfunctions of the ~~refrigeration~~ air conditioning system, other than that determined in ~~section~~paragraphs (d)(~~12~~) and (d)(~~23~~), including the following:
- (i) The cause of the malfunction; and
 - (ii) The type of repairs required and the date the repairs were completed.
- (D) If refrigerant is recycled off-site, a transportation bill-of-lading (or other transportation document as approved by the Executive Officer's ~~designee~~) indicating the name and location of the facility from which the refrigerant is shipped, the quantity of refrigerant transported, destination (company name, phone number, and location) and date of transportation.
- (E) The quantity (in pounds) of ~~Class I or Class II~~ high-global warming refrigerants purchased or used in the District in a calendar year and the name and address of the refrigerant supplier.
- (2) ~~On and after July 1, 1991, a~~Any person who receives refrigerant for recycling or reclaiming from off-site locations shall maintain copies of all transportation documents as required in ~~sections~~subparagraph (e)(1)(D) for each shipment of refrigerant received.
- (3) Records and reports required under ~~sections~~subparagraphs (e)(1)(A), (e)(1)(B), and (e)(1)(C) shall be generated by a ~~Certified Auditor or a~~ certified technician. Annual audits and maintenance records shall be in a format approved in writing by the Executive Officer's ~~designee~~.
- (4) All persons who sell or distribute any ~~Class I or Class II~~high-global warming refrigerant shall retain invoices that indicate the name of the purchaser, the date of sale, and the quantity of refrigerant purchased.

- (5) ~~A refrigerant distributor or wholesaler selling high-global warming potential refrigerant to a Ppurchasers of any Class I or Class II refrigerant who employs certified technicians shall provide evidence that at least one a certified technician is properly certified to the wholesaler who sells them refrigerant shall obtain written documentation that the purchaser employs that least one certified technician.~~ The distributor or wholesaler shall keep this information on file for a minimum of five years. ~~and may sell refrigerant to the purchaser or authorized representative even if such purchaser or authorized representative is not a properly certified technician. The purchaser must notify the wholesaler in the event that the purchaser no longer employs at least one properly certified technician.~~
- (6) Reclaimers shall maintain records of the names and addresses of persons sending them material for reclamation and the quantity of the material (the combined mass in pounds of refrigerant and contaminants) sent to them for reclamation.
- (7) Reclaimers shall maintain records of the quantity of material sent to them for reclamation, the mass in pounds of refrigerant reclaimed, and the mass in pounds of waste product.
- (8) ~~On and after October 14, 1994, a~~Any person owning and operating an approvedcertified refrigerant recovery or recycling ~~or recovery~~ equipment shall maintain the following records as required by to determine compliance with paragraphclause (d)(~~34~~)(~~ED~~)(i), which includes the following information:
- (A) Date of semi-annual inspection;
 - (B) All work completed for each recycling or recovery system to prevent or repair leaks, including results of leak testing and leak determinations; and
 - (C) Name(s) of the person who completed the inspection and repair, andincluding the name, address, and telephone number of the company the person is representing; ~~and~~
 - ~~(D) The permit number of the recycling or recovery equipment.~~
- (9) Records and reports as required under sectionsparagraphs (e)(1), (e)(2), (e)(4), (e)(5), (e)(6), (e)(7), and (e)(8) shall be maintained for not less than

53 years after their creation and shall be made available to the Executive Officer's ~~designee~~ upon request. |